TWO ELECTRODE SURGE ARRESTERS

CG/CG2 Series

DESCRIPTION

SRC Devices CG/CG2 GDT's are designed for a high degree of surge protection at a low cost. The CG Series (75-110V) is used for protection of test and communication equipment in which low voltage limits and extremely low arc voltages are required. The CG2 Series (145V-1000V) is used for protecting equipment for which higher voltage limits and holdover voltages are necessary. Comgaps function as switches which dissipate a minimum amount of energy and therefore handle currents that far surpass other types of transient voltage protection.

FEATURES

- Small size
- Rugged ceramic-metal construction
- Low capacitance (<1pF)
- Non Radioactive 600-1000 V
- Available with or without leads
- Available in tape-and-reel packaging

APPLICATIONS

- Communication lines
- CATV equipment
- Test equipment
- Data lines
- Power supplies
- Instrumentation circuits
- Medical electronics

APPROVALS

- UL Recognized: File Number E111526
- Meets REA PE-80

RATINGS (@ 25° C)

Parameter	Min	Typ	Max	Units
DC Breakdown Voltage	60	75	90	V
	72	90	108	V
	88	110	132	V
	116	145	174	V
	195	230	265	V
	213	250	288	V
	255	300	345	V
	297	350	403	V
	400	470	540	V
	510	600	690	V
	680	800	920	V
	850	1000	1150	V
Insulation Resistance	10^{10}	-	-	Ω
Capacitance	-	-	1	pF
Operational Temperature	-40	-	+125	°C

(See detailed specifications for more information.)

SPECIFICATIONS

All characteristics at 25°C

PARAMETER	CONDITIONS	SYMBOL	CG75 MIN	CG75 TYP	CG75 MAX	CG90 MIN	CG90 TYP	CG90 MAX	CG110 MIN	CG110 TYP	CG110 MAX	UNITS
Device Specifications												
DC Breakdown	500V/s	V_{BD}	60	75	90	72	90	108	88	110	132	V
Impulse Breakdown	100V/µs	V_{bd}	-10	-	400	-10	-	400	-10	-	450	V
Insulation Resistance	50V	IR	10^{10}	-	-	10^{10}	-	-	10^{10}	-	-	Ω
Capacitance	1MHz	C	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	I=5A min	V_{ARC}	-	10	-	-	10	-	-	10	-	V
Life Ratings(1)												
Surge Life	500A (10/1000µs)	-	1000	-	-	1000	-	-	1000	-	-	shots
Max Current Surge	20kA (8/20µs)	-	5	-	-	5	-	-	5	-	-	shots
AC Current	10x 1sec @ 60Hz	-	-	-	20	-	-	20	-	-	20	A
DC Holdover Voltage	per REA PE-80, 0.2A	-	-	55	-	-	65	-	-	80	-	V

PARAMETER	CONDITIONS	SYMBOL	CG2145 MIN	CG2145 TYP	CG2145 MAX	CG2230 MIN	CG2230 TYP	CG2230 MAX	CG2250 MIN	CG2250 TYP	CG2250 MAX	UNITS
Device Specifications												
DC Breakdown	500V/s	V_{BD}	116	145	174	195	230	265	213	250	288	V
Impulse Breakdown	100V/µs	V_{bd}	-10	-	500	-10	-	600	-10	-	625	V
Insulation Resistance	100V	IR	10^{10}	-	-	10^{10}	-	-	10^{10}	-	-	Ω
Capacitance	1MHz	C	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	I=5A min	V_{ARC}	-	15	-	-	15	-	-	15	-	V
Life Ratings(1)												
Surge Life	500A (10/1000µs)	-	1000	-	-	1000	-	-	1000	-	-	shots
Max Current Surge	20kA (8/20µs)	-	5	-	-	5	-	-	5	-	-	shots
AC Current	10x 1sec @ 60Hz	-	-	-	20	-	-	20	-	-	20	A
AC Follow-on Current	1/2 cycle @ 60Hz	-	-	-	20	-	-	20	-	-	20	A pk
DC Holdover Voltage	per REA PE-80,0.2A	-	-	90	-	-	150	-	-	150	-	V

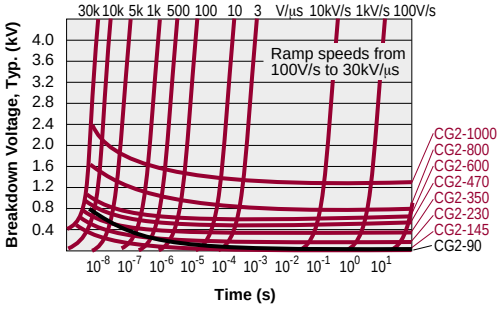
PARAMETER	CONDITIONS	SYMBOL	CG2300 MIN	CG2300 TYP	CG2300 MAX	CG2350 MIN	CG2350 TYP	CG2350 MAX	CG2470 MIN	CG2470 TYP	CG2470 MAX	UNITS
Device Specifications												
DC Breakdown	500V/s	V_{BD}	255	300	345	297	350	403	400	470	540	V
Impulse Breakdown	100V/µs	V_{bd}	-10	-	700	-10	-	750	-10	-	850	V
Insulation Resistance	100V	IR	10^{10}	-	-	10^{10}	-	-	10^{10}	-	-	Ω
Capacitance	1MHz	C	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	I=5A min	V_{ARC}	-	15	-	-	15	-	-	15	-	V
Life Ratings(1)												
Surge Life	500A (10/1000µs)	-	1000	-	-	1000	-	-	1000	-	-	shots
Max Current Surge	20kA (8/20µs)	-	5	-	-	5	-	-	5	-	-	shots
AC Current	10x 1sec @ 60Hz	-	-	-	20	-	-	20	-	-	20	A
AC Follow-on Current	1/2 cycle @ 60Hz	-	-	-	20	-	-	20	-	-	20	A pk
DC Holdover Voltage	per REA PE-80, 0.2A	-	-	150	-	-	150	-	-	150	-	V

PARAMETER	CONDITIONS	SYMBOL	CG2600 MIN	CG2600 TYP	CG2600 MAX	CG2800 MIN	CG2800 TYP	CG2800 MAX	CG21000 MIN	CG21000 TYP	CG21000 MAX	UNITS
Device Specifications												
DC Breakdown	500V/s	V_{BD}	510	600	690	680	800	920	850	1000	1150	V
Impulse Breakdown	100V/µs	V_{bd}	-10	-	1000	-10	-	1200	-10	-	1500	V
Insulation Resistance	100V	IR	10^{10}	-	-	10^{10}	-	-	10^{10}	-	-	Ω
Capacitance	1MHz	C	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	I=5A min	V_{ARC}	-	15	-	-	15	-	-	15	-	V
Life Ratings(1)												
Surge Life	500A (10/1000µs)	-	1000	-	-	1000	-	-	1000	-	-	shots
Max Current Surge	10kA (8/20µs)	-	10	-	-	10	-	-	10	-	-	shots
AC Current	10x 1sec @ 60Hz	-	-	-	20	-	-	20	-	-	20	A
AC Follow-on Current	1/2 cycle @ 60Hz	-	-	-	20	-	-	20	-	-	20	A pk
DC Holdover Voltage	per REA PE-80, 0.2A	-	-	150	-	-	150	-	-	150	-	V

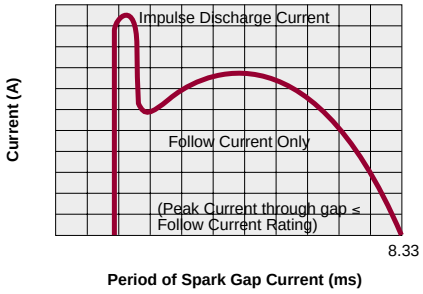
(1)End-of-Life limits are: DC: 50% of minimum initial DC breakdown voltage limit to 150% of maximum initial DC breakdown voltage limit
Impulse: less than 150% of initial Impulse breakdown voltage limit.

PERFORMANCE CHARACTERISTICCS

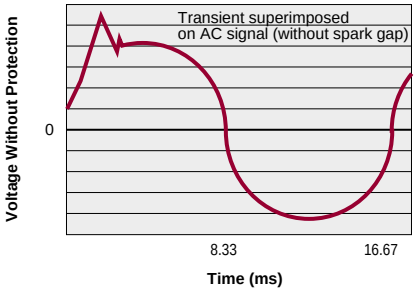
CG/CG2 Series
Voltage Breakdown



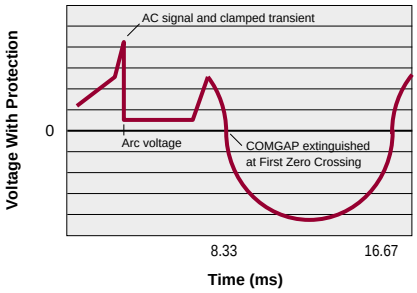
CG
Follow-On Current



Line Voltage - No Protection



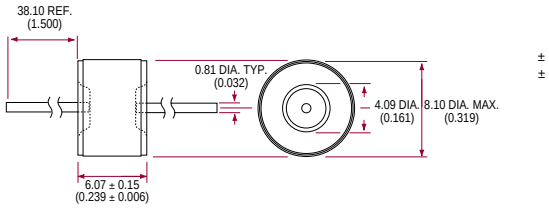
Line Voltage - With Protection



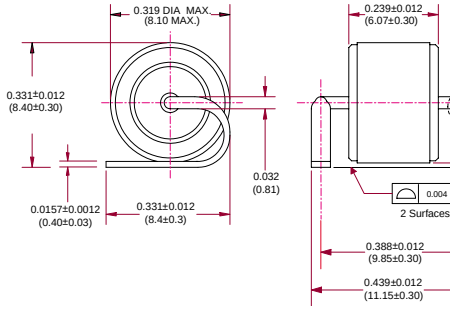
MECHANICAL DIMENSIONS

DIMENSIONS
mm
(inches)

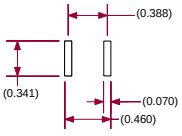
Other lead forms are available upon request.
Contact REMtech for more information.



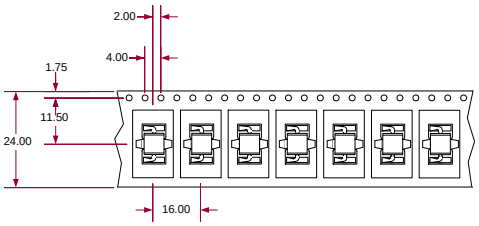
LS Outline



LS Recommended Land Pattern



LS Tape & Reel Packaging



Tape & Reel packaging is available on request. See ordering information below for part number structure.

ORDERING INFORMATION

CG/CG2's with other breakdown voltages in the 75-1000 V range are available upon request. A complete part number is represented by the digits below. For example, CG75 is a non-leaded 75V device, CG2-230L is a leaded 230V device, and CG2-800LTR is a leaded 800V device on tape-and-reel per EIA standard RS-296-D.

CG XXX X XX for 75, 90, 110V
CG2 XXX X XX for 145V & up

Series
CG
CG2

Breakdown Voltage
75 = 75V
90 = 90V
110 = 110V
145 = 145V
230 = 230V
250 = 250V
300 = 300V
350 = 350V
470 = 470V
600 = 600V
800 = 800V
1000 = 1000V

Shipping Package
TR = Tape & Reel
(Blank) = Bulk

Options
L = Leads
(Blank) = No Leads

Tape & Reel Information

CGXXXLTR - Tape & Reel per EIA RS-296-D. Quantity = 1,000/Reel

CGXXXLTE - Tape & Reel per IEC286-1. Quantity = 1,000/Reel

CGXXXLSTR - See figure above for tape & reel information. Quantity = 1,400/Reel